

Module 4: Overview of Non-Proprietary BMP Design Specifications from the Virginia Stormwater BMP Clearinghouse

Module 4 Objectives

After completing this module, you will be able to:

- Understand the construction specifications associated with non-proprietary BMPs listed on the Virginia BMP Clearinghouse
- Develop an inspection schedule based on the types of BMPs for a project

Module 4 Content

4a. Introduction to the Non-Proprietary BMP Design Specifications from the Virginia Stormwater BMP Clearinghouse

4a. Introduction

An array of BMPs have been designed and used over time. The most-used practices have probably been filtering practices such as grass filter strips and channels, infiltration practices such as dry wells and infiltration trenches, permeable pavement, and impoundment practices such as wet and dry ponds and constructed wetlands. These earlier practices were largely aimed at *controlling* the volume and discharge of peak rates of runoff from the site, as well as *providing treatment* for the pollutants in the runoff.

In the last decade, a new type of BMP evolved that is aimed at *reducing* the volume of stormwater runoff leaving the development site and therefore mimicking the hydrologic patterns that existed at a site before it was developed. This is a way to minimize our “human footprint” or interference in natural processes. These new kinds of practices have been labeled “low impact development” (LID) BMPs and include green roofs, bioretention, rain gardens, rooftop disconnection, dry swales, and wet swales. LID practices can be linked with Environmental Site Design (ESD) techniques such as conserving open space and natural areas and reducing the amount of impervious surfaces on lots, residential streets, and parking areas to significantly reduce impervious surfaces and overall development costs while providing greater protection of natural systems and processes.

Attention to proper construction as well as the timing of construction of BMPs is important for assuring they function as designed.

The design specifications for the non-proprietary BMPs from the BMP Clearinghouse follow this introduction. The VSMP inspector must be familiar with all the design specifications to ensure BMPs are being properly installed and therefore compliant with the VSMP Regulation.